

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) An air break switch actuator comprising or including:  
a structure providing means to locate in position,  
a switch actuating means rotatable about a rotation axis between a first and a second rotational position corresponding to an open and closed position of a switch,  
operating means rotatable about said rotation axis and responsive in rotation to a manual and/or by a drive unit input via an operating lever of said operating means,  
a connection plate rotatable about said rotation axis connecting for rotation the operating means with the switch actuation means to positively displace the switch actuation means at least during part of the movement of the operating means, said connection plate carrying pins which extend into slots of said switch actuating means and said operating means,  
biasing means applying a biasing force to said connection plate in toggle like manner,  
said connection plate being responsive in rotation to the rotation of said operating means by coupled engagement via at least one of said pins prior to reaching said toggle point whereupon said connection plate by coupled engagement via at least one of said pins with said switch actuation means rotate said switch actuation means under the urge of said biasing means from one of the first and second position to the other;  
and wherein a pawl is provided to lock rotation of said switch actuating means by its engagement with a pawl engageable notch in said switch actuating means when said switch is in its second rotational position.
2. (original) An air break switch actuator as claimed in claim 1 wherein said biasing means acts on the connection means to bias the connection plate via a linkage means, there being

provided as part of said linkage means a trigger means to move the direction of application of the biasing force at said toggle point.

3. (original) An air break switch actuator as claimed in claim 2 wherein said trigger means is engaged to the linkage mechanism and becomes operative, to move the direction of the biasing force when said connection means is at the toggle point, the direction being displaced responsive to the movement of said connection plate.

4. (original) An air break switch actuator as claimed in any one of claims 1 to 3 wherein said switch actuating means includes a switch lever rotatably movable about said axis between two positions corresponding to the open and closed positions of said switch.

5. (currently amended) An air break switch actuator as claimed in any one of claims 1 to 3 ~~[[4]]~~ wherein said operating means includes an operating lever rotatably movable about said axis.

6. (currently amended) An air break switch actuator as claimed in claim 3 ~~[[5]]~~ wherein said operating means includes an operating plate directly connected to and for rotation by said operating layer.

7. (currently amended) An air break switch actuator as claimed in any one of claims ~~4 to 6~~ 3 wherein said switch actuation means includes a switch plate directly connected to said switch lever to operate the rotation of said switch lever respondent to the displacement thereof by the connection plate.

8. (currently amended) An air break switch actuator as claimed in any one of claims 1 to 3 ~~[[7]]~~ wherein at least one of said pins of said connection plate is engaged to and to displace said switch plate when said connection plate rotates through and beyond said toggle point.

9. (currently amended) An air break actuator as claimed in claims ~~6 to 8~~ 3 wherein said slot of said switch plate is of identical shape to the slot of said operating plate.

10. (currently amended) An air break switch actuator as claimed in claims ~~6 to 9~~ 3 wherein said slot of said operating plate, when said connection plate is at its extremes of rotation, is in alignment with the slot of said switch plate.

11. (currently amended) An air break switch actuator as claimed in any one of claims ~~6 to 10~~ 3 wherein said connection plate is intermediate of the operating plate and said switch plate, said pins extend parallel to said axis.

12. (currently amended) An air break switch actuator as claimed in claims ~~7 to 11~~ 3 wherein said operating plate has two slots and said switch plate has two slots, said connection plate providing two pins, one for each of the pairs of slots.

13. (currently amended) An air break switch actuator as claimed in any one of claims ~~3 to 12~~ 3 wherein said linkage means includes a connection rod acting directly on and at a circumferential point of the connection plate, said connection rod connected to a crank pivoted about a fulcrum provided by said trigger ~~[[arm]]~~ means, wherein said biasing means is provided to act on said crank to bias said connection rod toward said connection plate.

14. (currently amended) An air break switch actuator as claimed in claim ~~[[1]]~~ 3 wherein said trigger ~~[[arm]]~~ means is pivotably located to said structure providing means to displace said fulcrum with a component of movement in a direction tangential to the arc of movement of the connection point of the connection rod to the connection plate.

15. (currently amended) An air break switch actuator as claimed in any one of claims ~~7 to 14~~ 3 wherein said pawl is movably mounted from said structure providing means to selectively lock the rotation of the switch plate.

16. (original) An air break switch actuator as claimed in claim 15 wherein said pawl is able to move between a retracted condition and a locking position, wherein in a locking position it is able to engage with a complementary shaped notch of said switch plate.

17. (original) An air break switch actuator as claimed in claim 16 wherein said pawl is movable from said engaged condition to said retracted condition, respondent to the rotational position of said connection plate, by a cam follower which follows the contour of an appropriately shaped cammed surface of said connection plate.

18. (original) An air break switch actuator as claimed in claimed 16 or 17 wherein said pawl is movable from said retracted condition to said engaged condition, respondent to the

rotational position of said connection plate, by a cam follower which is biased towards and to follow the contour of an appropriately shaped cammed surface of said connection plate.

19. (original) The use of an actuator as claimed in any one of claims 1 to 18 for the control of an air brake switch between an open and closed position of the air brake switch.

20. (currently amended) A switch actuator to move a switch between a first and second position corresponding to an open and closed position of the switch, said actuator comprising or including:

a first rotatable member in mechanical connection with and to move said switch between said open and closed position by the rotation of said rotatable member about an axis,

a second rotatable member in mechanical connection with an actuator, and rotatable about said axis,

a connection member rotatable about said pivot axis, said connection member biased by a biasing means for rotation about said pivot axis in a toggle manner between a first angular position and a second angular position, said connection member providing a mechanical connection means to locate:

(a) against a fixed point of, and be displaced by, said second rotatable means at least during the rotation of the connection member by the second rotation means towards the point of toggle of the connection means, and

(b) against a fixed point of and to thereby displace, the first rotatable member at least during rotation of said connection member passed said point of toggle

wherein a pawl is provided to lock rotation of said first rotatable member by its engagement with a pawl engageable notch in said first rotatable member when said switch is in its closed condition.

21. (original) A switch actuator as claimed in claim 20 wherein said fixed points of said first and second rotatable members are the distal ends of at least one slot provided in each of said first and second rotatable members, said mechanical connection means extending into each of said slots.

22. (original) A switch actuator as claimed in claims 20 or 21 wherein said biasing means acts on the connection member to bias the connection member via a linkage means, there being provided as part of said linkage means a trigger means to move the direction of the biasing force applied by the biasing means to the connection member dependent on the angular position of said connection member.

23. (original) A switch actuator as claimed in claim 22 wherein said trigger means is engaged to the linkage member and becomes operative to move the direction of the biasing force, when said connection member approaches a point of rotation nearing the toggle point, by being triggered by the movement of said connection member.

24. (original) A switch actuator as claimed in claim 23 wherein said linkage means is configured such that said trigger is actuated by the movement of said connection member to advance the toggle point to occur earlier in the rotation of said connection member.

25. (currently amended) The use of an actuator as claimed in any one of claims 20 [[to 24]] or 21 for the control of an air brake switch between an open and closed position of the air brake switch.